

## Top five tips for December

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1. Feed your best quality silage to weanling heifers. Heifers need 73+ DMD plus 1kg high quality concentrate to meet growth targets. If silage is lower quality, 2kg+ concentrate is needed. Group lighter heifers for extra feeding.
2. This year has been difficult for costs – cash will be tight next spring. Complete a cash flow for four to six months and examine your costs using profit monitor. It's not everyone's favourite job, but it is worth doing in December.
3. Worm, fluke and lice burdens – are they under control for your stock? Some farms are reporting issues with lice burden this year and this will affect thrive. Speak to your vet about treatment plans for parasites if needed.
4. Are you sorted for extra help next spring? It is a good time to introduce new part-time workers to the farm. The quieter time allows you to explain the workings of the farm and the new person to become familiar with the routines. Don't wait until the first cow is in the calving pen to go looking for help.
5. Finally, most dairy farmers will be glad to see the back of 2023. Many challenges have been laid at the door of dairy farmers this year, but like before they will be met with ingenuity and a partnership approach. Take a bit of time off from these concerns and enjoy a well-earned break with family and friends over Christmas.

## Key points on mineral specifications for dry cows

- Dry cows should receive at least six weeks of dry cow minerals (at least 5kg per cow in total at 120g daily feeding rate);
- Magnesium (Mg) is essential for milk fever prevention – target 22-25% on the label;
- phosphorus (P) should be 2-4% (high if low-P silage is being fed);
- vitamin D should be at least 120,000-150,000 units per kg;
- vitamin E should be 600-1,000 units per kg;
- use a mineral with high levels of trace minerals (selenium (Se), copper (Cu), iodine (I), cobalt (Co), manganese (Mn), zinc (Zn)) to promote health and immunity; and,
- include protected trace minerals where there is a history of issues or if the silage has a high iron (Fe) and/or sulphur (S) content.

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## Breeding tips for winter milk herds

- Identify a start and end date for the coming breeding season. For the majority of winter milk herds (<50% liquid contract) starting to calve in October will suffice to meet contract targets. Also work out the number of cows required to calve in the autumn to supply contracts.
- Use the Sire Advice tool on Herdplus to develop your team of bulls, create a mating plan and avoid any inbreeding. Maximise uses of sexed semen to produce the target number of heifer calves and use high Dairy Beef Index (DBI) beef AI sires on the remainder.
- Using your herd records. Identify the lower performing cows in the herd. Either mark them for culling or breed them to high-DBI beef bulls. Do not breed your replacements from cows with low milk solids, poor temperament, poor fertility, high somatic cell count (SCC), lameness, etc.
- Select a panel of high Economic Breeding Index (EBI) (>€300) bulls from the active bull list (more than seven bulls for a herd of up to 100 cows). Your bull team should be balanced for both the milk (>€100) and fertility (>€120) sub-index. Target a high combined kg of milk solids (>35kg) figure in the team of bulls. Aim to hold the milk volume proof at 0-150kg with high fat (>0.24) and protein (>0.17) potential.
- The health sub-index has shown a direct correlation to SCC performance; therefore, select bulls that are positive for health, with a team average >€5.
- Avoid extremes with regard to type/conformation in order to breed a medium-sized, functional cow that will last in the herd. Remember a cow with a maintenance sub-index of €8 shall be 600kg mature liveweight.
- Select two to three bulls within your bull team with low calving ease proofs for use on your replacement heifers.
- Target to breed all replacement heifers in the first 10 days of the breeding season. A simple synchronisation programme will help achieve this.

## Solar energy opportunities for dairy farms

Electricity costs on dairy farms have increased rapidly over the last two years. The guide cost is €12.00 per 1,000 litres of milk sold or an average consumption of 25,000kWh/year per 100 cows (excludes domestic usage). Solar panels have potential on some farms to help reduce this cost.

Before considering solar, farmers should maximise the potential to save energy on their farms by pricing around on energy suppliers, variable speed pumps, plate coolers, etc., to reduce overall energy consumed.

That being said, solar photovoltaic (PV) is potentially a good investment on a lot of dairy farms. The solar PV system converts daylight into direct current (DC) electricity, which is then converted to alternating current (AC) by an inverter that is installed as part of the solar system.

The key component to a solar system on your farm is the size to install. If you size your system to sell back electricity to the grid, it is important the ESB infrastructure on your holding is checked prior to investing, as this will determine the maximum you will be able to export. Also, the sizing of the PV system will be determined by the maximum eligible under



*Solar PV may be an option to bring down energy costs.*

Targeted Agriculture Modernisation Schemes (TAMS) support, which is defined by the annual consumption and the generation capacity of the panels. Under TAMS 3 support a farmer can avail of a 60% grant to a ceiling of €90,000. This is a separate ceiling for solar and won't affect other aspects of TAMS. When the grant is included farmers can have very short payback of about three years at current electricity prices (Table 1). Solar can be a good investment but should be carefully planned and sized.

**Table 1: Effect of the Solar Capital Investment Scheme (SCIS) on payback (100 cow farm).**

Scenario	PV size (kWp)	Grant	Battery (kWh)	Investment (excl. VAT)	Annual value generated	Payback (years)
1	26	0%	0	€39,364	€5,268	7.5
2	26	0%	13	€55,614	€5,630	9.9
3	26	60%	0	€15,746	€5,268	3.0
4	26	60%	13	€24,683	€6,052	4.1

*Source: John Upton, Teagasc Moorepark. Scenario 3 and 4 include 60% capital grant on both PV panels and battery storage. Scenario 2 and 4 include battery storage. Accelerated capital allowances not included in payback figures.*



## 12 STEPS TO REDUCING EMISSIONS

Over 12 months, the Teagasc advisory newsletters will outline actions farmers can take to reduce their emissions.

### Step 12: Incorporate white clover into grassland swards

#### How does this reduce emissions?

Incorporating white clover into grassland reduces the demand for chemical nitrogen (N). Less chemical N fertiliser spread means less nitrous oxide (N<sub>2</sub>O) gas being emitted into the air, which is one of the main greenhouse gases. White clover fixes N from the atmosphere and makes it available for plant growth, reducing the requirement for chemical fertiliser N. Clover itself doesn't reduce GHG emissions, it's the reduction in chemical N use that reduces GHGs.

#### Is there a gain for me?

The benefits for you include a lower requirement for N fertiliser use by up to 100kg/ha, potential to increase growth compared to grass-only swards, increased animal intake in summer and autumn, increased milk production and liveweight gain, and increased N fixation.

#### What action do I take?

Plan now for 2024 by identifying paddocks to establish clover based on annual pasture productivity, sward quality and soil fertility. Good soil fertility (pH 6.3+ and P and potassium (K) index 3) is critical for clover establishment and performance, so book soil tests now. Speak to your advisor for details.

## HEALTH & SAFETY

### Staying safe over Christmas



It is important to be mindful of the safety of children during this time. Ensure there is a safe secure play area in place when children are outside. When children are in the farmyard they must always be supervised. Easy to read danger signs should be in place and these signs should be explained to children. Give preventing fires in your home and on your farm your attention. Irish

research has shown that farmers and agricultural workers account for 20% of all fire deaths. Almost all fires occur in dwelling houses. This level is proportionately higher than other sectors. Contributory factors include smoking, high alcohol consumption, plugged in or faulty electrical devices, open fires, frying or chip pans, and a small number of fires are linked to candles.